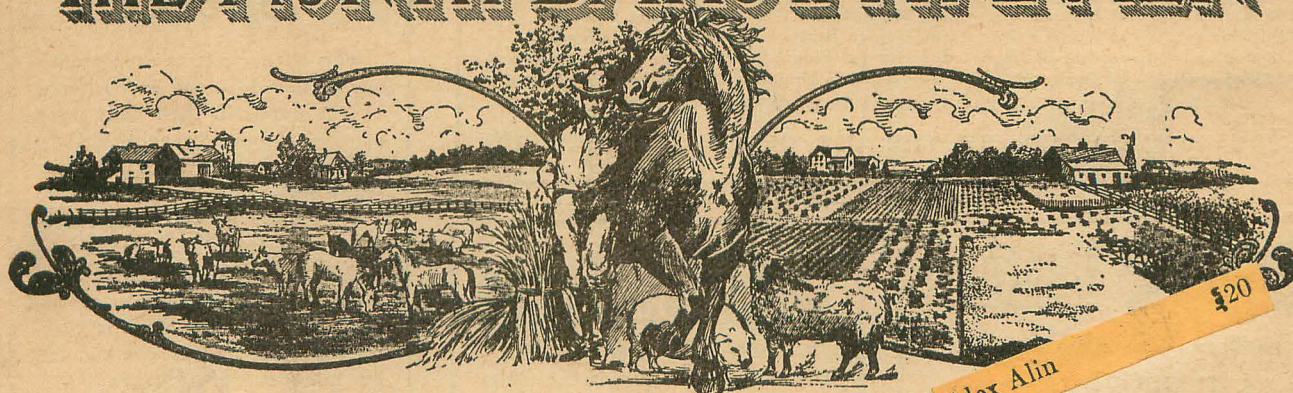


# THE NORTH DAKOTA FARMER



"With Malice Toward None"

Lisbon, N. D.

April 15, 1918

Vol. 19, No. 10

## THE STATE OF NORTH DAKOTA AS ALWAYS

### My Creed

"I believe in the United States of America as a government of the people, by the people, for the people, whose just powers are derived from the consent of the governed; a democracy in a republic; a sovereign nation of many sovereign states; a perfect union, one and inseparable; established upon those principles of freedom, equality, justice and humanity for which American patriots sacrificed their lives and fortunes.

"I therefore believe it is my duty to my country to love it, to support its constitution, to obey its laws, to respect its flag and to defend it against all enemies."

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This speller selects each month  
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in the various branches. Only  
as they meet a word do they  
study its spelling. There is also  
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for spelling, contractions, abbrevi-  
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by hundreds of teachers.

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**Prices**

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Baby Stuart.....VanDyck  
Three Members of a Temperance  
Society.....Her ing  
King Charles Spaniels.....Landseer  
Lost.....Schenck  
Sheep in Pasture.....Bonheur  
The Prize Calf.....Landseer  
Cattle.....Potter  
Landais Cattle.....VanMarcke

Cows at Watering Place.....Bonheur  
An Old Monarch.....Bonheur  
A Study of Cats.....Lambert  
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**\$.90 PER 500, WITH PRINTED HEADING**  
WITHOUT PRINTED HEAD \$1.50 PER 1,000 AND \$.80 PER 500.

Sent anywhere in the state for above price, all charges prepaid.  
Sample 120 sheets sent for 30 cents post paid.

## North Dakota Birds

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Size, 7 x 9

Five sets of fifteen birds each.

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Order sets by number.

1. American Blue Jay, Barn Swallow, Black Tern, Bob-white, Cedar Waxwing, Meadowlark, Mourning Dove, Night-hawk, Purple Finch, Purple Martin, Red-tailed Hawk, Rose-breasted Grosbeak, Snowy Owl, Whitethroated Sparrow, Wood Pewee.
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ALSO IN ADJACENT STATES**

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# THE NORTH DAKOTA FARMER

Vol. 19, No. 10

LISBON, N. D., APRIL 15, 1918

75 Cents a Year

## REVISED OFFICIAL GRAIN STANDARDS

Order issued by D. F. Houston, Secretary of Agriculture

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (39 U. S. Statutes at Large, page 482), I, David F. Houston, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for wheat, as hereinafter described, which shall become effective on the fifteenth day of July, nineteen hundred and eighteen, and shall thereupon supersede the official grain standards of the United States for wheat as promulgated by me under said Act on the thirty-first day of March, nineteen hundred and seventeen.

### Official Grain Standards of the United States for Wheat

For the purposes of the official grain standards of the United States for wheat:

Section 1. Wheat. Any grain which when free from dockage, contains more than ten per centum of grain of a kind or kinds other than wheat shall not be classified as wheat. The term "wheat" in these standards shall not include emmer, spelt, and einkorn.

Sec. 2. Basis of determinations. Each determination of dockage, moisture, temperature, odor, onions, garlic, and live weevils or other insects injurious to stored grain shall be upon the basis of the grain including dockage. All other determinations shall be upon the basis of the grain when free from dockage.

Sec. 3. Percentages. Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Sec. 4. Percentage of moisture. Percentage of moisture in wheat shall be that ascertained by the moisture tester and the method of use thereof described in Circular No. 72, and supplement thereto, issued by the United States Department of Agriculture, Bureau of Plant Industry, or ascertained by any device and method giving equivalent results.

Sec. 5. Test weight per bushel. Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 472, dated October 30,

1916, issued by the United States Department of Agriculture, or as determined by any device and method giving equivalent results.

Sec. 6. Dockage. Dockage includes sand, dirt, weed seeds, weed stems, chaff, straw, grain other than wheat, and any other foreign material, which

### NORTH DAKOTA

Mrs. I. P. Blinkinsop,  
Bowman, N. D.

(Tune: "Maryland")

You ask what land I love the best,  
Dakota, North Dakota.  
A central state in U. S. A.,  
Dakota, North Dakota.  
'Tis here her prairies fairly shine,  
Here's where free coal is in the mine,  
Oh, I am glad this state is mine,  
Dakota, North Dakota.

'Tis here we raise all kinds of crops,  
Dakota, North Dakota.  
'Tis here the flax in beauty waves,  
'Tis here the oats win lots of praise,  
'Tis here the wheat for soldiers, brave,  
Is gleaned in North Dakota.

I love this state—I know it best,  
Dakota, North Dakota.  
It's good for me, has stood the test,  
Dakota, North Dakota.  
It is the state for progress made,  
Prohibition liquor laws are laid,  
And rural schools are for state aid,  
Dakota, North Dakota.

For health and wealth we have the place,  
Dakota, North Dakota.  
We are loyal too—in every case,  
Dakota, North Dakota.  
We are working for the U. S. A.  
Food conservation is one way,  
And we are sure to win the day,  
Dakota, North Dakota.

can be removed readily from the wheat by the use of appropriate sieves, cleaning devices, or other practical means suited to separate the foreign material present; also undeveloped, shriveled, and small pieces of wheat kernels removed in properly separating the foreign material, and which can

not be recovered by properly re-screening or recleaning. The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage so calculated, when equal to one per centum or more, shall be stated in terms of whole per centum; and when less than one per centum shall not be stated. A fraction of a per centum shall be disregarded. The percentage of dockage so determined and stated, shall be added to the grade designation.

Sec. 7. Foreign material other than dockage shall include all matter other than wheat which is not separated from the wheat in the proper determination of dockage, except as provided in the case of smutty wheat.

Sec. 8. Cereal grains. Cereal grains shall include rye, barley, emmer, spelt, einkorn, corn, grain sorghums, oats, and rice, only, and shall not include buckwheat, flaxseed, and wild oats.

Sec. 9. Heat damaged kernels. Heat damaged kernels shall be kernels and pieces of kernels of wheat which have been distinctly discolored by external heat or as a result of heating caused by fermentation.

Sec. 10. Treated wheat. Treated wheat shall be wheat of which more than ten per centum has been scoured, limed, washed, or treated in any similar manner.

Sec. 11. Garlicky wheat. Garlicky wheat shall be all wheat which has an unmistakable odor of garlic or wild onions, or which contains garlic or wild onion bulblets in a quantity equal to one or more bulblets in one thousand grams of wheat.

Sec. 12. Smutty wheat. Smutty wheat shall be all wheat which has an unmistakable odor of smut, or which contains spores, balls, or portions of balls, of smut, in excess of a quantity equal to two balls of average size in fifty grams of wheat.

### Classes and Subclasses of Wheat

Sec. 13. Classes and subclasses. Wheat shall be divided into classes and subclasses as follows:

#### CLASS I.

##### Hard Red Spring

This class shall include all varieties of hard red spring wheat, and may include not more than ten per centum of other wheat or wheats. This class shall be divided into three subclasses as follows:



**Dark Northern Spring**

This subclass shall include wheat of the class Hard Red Spring consisting of seventy-five per centum or more of dark, hard, and vitreous kernels. This subclass shall not include more than ten per centum of wheat of the variety Humpback.

**Northern Spring**

This subclass shall include wheat of the class Hard Red Spring consisting of less than seventy-five per centum and more than twenty-five per centum of dark, hard, and vitreous kernels. This subclass shall not include more than ten per centum of wheat of the variety Humpback.

**Red Spring**

This subclass shall include wheat of the class Hard Red Spring consisting of not more than twenty-five per centum of dark, hard and vitreous kernels. This subclass shall also include wheat of the class Hard Red Spring consisting of more than ten per centum of the variety Humpback.

**CLASS II.****Durum**

This class shall include all varieties of durum wheat, and may include not more than ten per centum of other wheat or wheats. This class shall be divided into three subclasses as follows:

**Amber Durum**

This subclass shall include wheat of the class Durum consisting of seventy-five per centum or more of hard and vitreous kernels of amber color. This subclass shall not include more than ten per centum of wheat of the variety Red Durum.

**Durum**

This subclass shall include wheat of the class Durum consisting of less than seventy-five per centum of hard and vitreous kernels of amber color. This subclass shall not include more than ten per centum of wheat of the variety Red Durum.

**Red Durum**

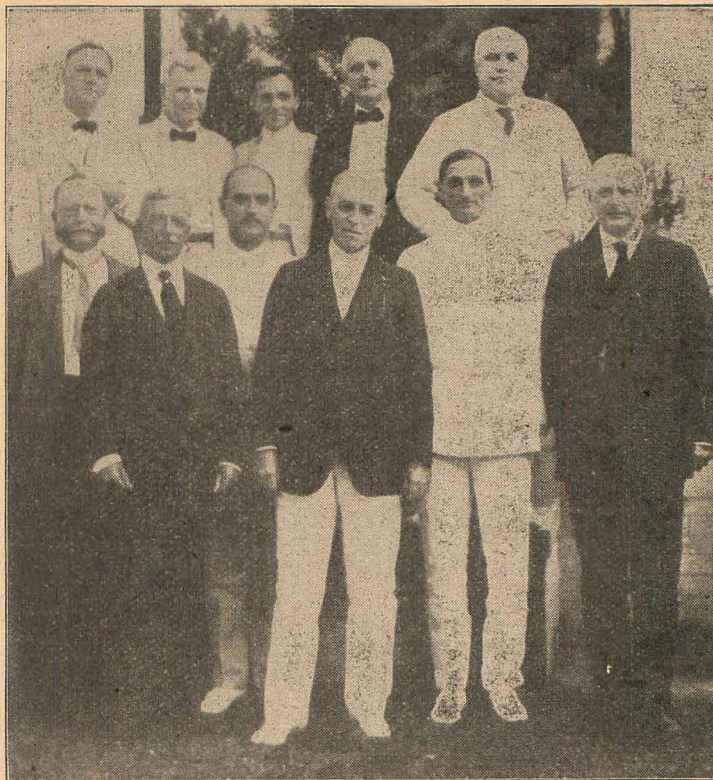
This subclass shall include wheat of the class Durum consisting of more than ten per centum of the variety Red Durum.

**Mixed Wheat**

Sec. 14. Mixed wheat. Mixed wheat shall be any mixture of wheat not provided for in the classes from I to VI, inclusive, defined in section 13.

**Grade Requirements****Hard Red Spring Wheat**

Sec. 15. Grades for Hard Red Spring Wheat. The subclasses Dark Northern Spring, Northern Spring,

**Thrilling Words of Our President at Baltimore**

President Woodrow Wilson and his Cabinet

For myself I am ready, ready still, ready even now, to discuss a fair, just and honest peace at any time that it is sincerely proposed—a peace in which the strong and the weak shall fare alike. But the answer, when I proposed such a peace, came from the German commanders in Russia, and I cannot mistake the meaning of the answer.

I accept the challenge. I know that you accept it. All the world shall know that you accept it. It shall appear in the utter sacrifice and self-forgetfulness with which we shall give all that we love and all that we have to redeem the world and make it fit for free men, like ourselves, to live in. This now is the meaning of all that we do. Let everything that we say, my fellow countrymen, everything that we henceforth plan and accomplish, ring true to this response till the majesty and might of our concerted power shall fill the thought and utterly defeat the force of those who flout and misprize what we honor and hold dear.

Germany has once more said that force and force alone shall decide whether justice and peace shall reign in the affairs of men, whether right as America conceives it or dominion as she conceives it, shall determine the destinies of mankind. There is, therefore, but one response possible from us, force, force to the utmost, force without stint or limit, the righteous and triumphant force which shall make right the law of the world and cast every selfish dominion in the dust.

and Red Spring, shall be divided into six grades for each subclass, the designations and requirements of which, respectively, shall be as specified in this section.

No. 1 Dark Northern Spring,  
No. 1 Northern Spring, and  
No. 1 Red Spring, each, except as provided in item (g) below,  
(a) shall be bright, cool and sweet,  
(b) shall have a test weight per

bushel of at least fifty-eight pounds,

(c) may contain not more than fourteen per centum of moisture,

(d) may contain not more than one per centum of foreign material other than dockage, which one per centum may include not more than five-tenths of one per centum of matter other than cereal grains,

(e) may contain not more than two per centum of damaged kernels, which



may include not more than one-tenth of one per centum of heat damaged kernels,

(f) may contain not more than five per centum of wheat other than hard red spring, which five per centum may include not more than two per centum of common white, white club, and durum wheat, either singly or in any combination, and

(g) may contain not more than five per centum of wheat of the variety Humpback in either No. 1 Dark Northern Spring or No. 1 Northern Spring.

No. 2 Dark Northern Spring,

No. 2 Northern Spring, and

No. 2 Red Spring, each,

(a) shall be cool and sweet,

(b) shall have a test weight per bushel of at least fifty-seven pounds,

(c) may contain not more than fourteen and one-half per centum of moisture,

(d) may contain not more than two per centum of foreign material other than dockage, which two per centum may include not more than one per centum of matter other than cereal grains,

(e) may contain not more than four per centum of damaged kernels, which may include not more than two-tenths of one per centum of heat damaged kernels, and

(f) may contain not more than five per centum of common white, white club, and durum wheat, either singly or in any combination.

No. 3 Dark Northern Spring,

No. 3 Northern Spring, and

No. 3 Red Spring, each,

(a) shall be cool and sweet,

(b) shall have a test weight per bushel of at least fifty-five pounds,

(c) may contain not more than fifteen per centum of moisture,

(d) may contain not more than three per centum of foreign material other than dockage, which three per centum may include not more than two per centum of matter other than cereal grains, and

(e) may contain not more than seven per centum of damaged kernels, which may include not more than five-tenths of one per centum of heat damaged kernels.

No. 4 Dark Northern Spring,

No. 4 Northern Spring, and

No. 4 Red Spring, each,

(a) shall be cool and sweet,

(b) shall have a test weight per bushel of at least fifty-three pounds,

(c) may contain not more than sixteen per centum of moisture,

(d) may contain not more than five per centum of foreign material other than dockage, which five per centum may include not more than three per

centum of matter other than cereal grains, and

(e) may contain not more than ten per centum of damaged kernels, which may include not more than one per centum of heat damaged kernels.

No. 5 Dark Northern Spring,

No. 5 Northern Spring, and

No. 5 Red Spring, each,

(a) shall be cool, but may be musty or slightly sour,

(b) shall have a test weight per bushel of at least fifty pounds,

(c) may contain not more than sixteen per centum of moisture,

(d) may contain not more than seven per centum of foreign material other than dockage, which seven per centum may include not more than five per centum of matter other than cereal grains, and

(e) may contain not more than fifteen per centum of damaged kernels, which may include not more than three per centum of heat damaged kernels.

Sample Grade Dark Northern Spring, Sample Grade Northern Spring, and

Sample Grade Red Spring, each,

shall be wheat of the subclass Dark Northern Spring, or Northern Spring, or Red Spring, respectively, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive, or which has any commercial objectionable foreign odor except of smut, garlic, or wild onions, or is very sour, or is heating, hot, infested with live weevils or other insects injurious to stored grain, or is otherwise of distinctly low quality, or contains small, inseparable stones or cinders.

#### Durum Wheat

Sec. 16. Grades for Durum Wheat. The subclasses Amber Durum, Durum, and Red Durum shall be divided into six grades for each subclass, the designations and requirements of which, respectively, shall be as specified in this section.

No. 1 Amber Durum,

No. 1 Durum, and

No. 1 Red Durum, each, except as provided in item (g) below.

(a) shall be bright, cool and sweet,

(b) shall have a test weight per bushel of at least sixty pounds,

(c) may contain not more than fourteen per centum of moisture,

(d) may contain not more than one per centum of foreign material other than dockage, which one per centum may include not more than five-tenths of one per centum of matter other than cereal grains,

(e) may contain not more than two per centum of damaged kernels, which may include not more than one-tenth of one per centum of heat damaged kernels,

(f) may contain not more than five per centum of wheat other than durum, which five per centum may include not more than two per centum of common white, white club, and soft red winter wheat, either singly or in any combination, and

(g) may contain not more than five per centum of wheat of the variety red durum in either No. 1 Amber Durum or No. 1 Durum.

No. 2 Amber Durum,

No. 2 Durum, and

No. 2 Red Durum, each,

(a) shall be cool and sweet,

(b) shall have a test weight per bushel of at least fifty-eight pounds,

(c) may contain not more than fourteen and one-half per centum of moisture,

(d) may contain not more than two per centum of foreign material other than dockage, which two per centum may include not more than one per centum of matter other than cereal grains,

(e) may contain not more than four per centum of damaged kernels, which may include not more than two-tenths of one per centum of heat damaged kernels, and

(f) may contain not more than five per centum of common white, white club, and soft red winter wheat, either singly or in any combination.

No. 3 Amber Durum,

No. 3 Durum, and

No. 3 Red Durum, each,

(a) shall be cool and sweet,

(b) shall have a test weight per bushel of at least fifty-six pounds,

(c) may contain not more than fifteen per centum of moisture,

(d) may contain not more than three per centum of foreign material other than dockage, which three per centum may include not more than two per centum of matter other than cereal grains, and

(e) may contain not more than seven per centum of damaged kernels, which may include not more than five-tenths of one per centum of heat damaged kernels.

No. 4 Amber Durum,

No. 4 Durum, and

No. 4 Red Durum, each,

(a) shall be cool and sweet,

(b) shall have a test weight per bushel of at least fifty-four pounds,

(c) may contain not more than sixteen per centum of moisture,

(d) may contain not more than five per centum of foreign material other than dockage, which five per centum may include not more than three per centum of matter other than cereal grains, and

(e) may contain not more than ten per centum of damaged kernels, which



may included not more than one per centum of heat damaged kernels.

No. 5 Amber Durum,

No. 5 Durum, and

No. 5 Red Durum, each,

(a) shall be cool, but may be musty or slightly sour,

(b) shall have a test weight per bushel of at least fifty-one pounds,

(c) may contain not more than sixteen per centum of moisture,

(d) may contain not more than seven per centum of foreign material other than dockage, which seven per centum may include not more than five per centum of matter other than cereal grains, and

(e) may contain not more than fifteen per centum of damaged kernels, which may include not more than fifteen per centum of damaged kernels, which may include not more than three per centum of heat damaged kernels.

Sample Grade Amber Durum,

Sample Grade Durum, and

Sample Grade Red Durum, each

shall be wheat of the subclass Amber Durum, or Durum, or Red Durum, respectively, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive, or which has any commercially objectionable foreign odor except of smut, garlic, or wild onions, or is very sour, or is heating, hot, infested with live weevils or other insects injurious to stored grain, or is otherwise of distinctly low quality, or contains small, inseparable stones or cinders.

#### Mixed Wheat

Sec. 21. Grades for Mixed wheat. Mixed wheat shall be graded according to each of the grade requirements common to all of the subclasses of the class of the wheat which predominates over each other class in the mixture, except that (1) all of the grade requirements in any subclass as to the maximum percentage of other wheat or other varieties of wheat shall be disregarded, and (2) when soft red winter wheat so predominates, the grade requirements as to test weight per bushel shall be those of the subclass Red Winter. The grade designation of mixed wheat shall include, successively, in the order named, the number of the grade or the words "Sample Grade," as the case may be, the word "Mixed," and, in the order of its predominance, the name and approximate percentage of each class of wheat which constitutes ten per centum or more of the mixture, but if only one class exceeds ten per centum of the mixture, the name and approximate percentage of that class shall be added to the grade designation followed by the name and approxi-

mate percentage of at least one other class.

#### Treated Wheat

Sec. 22. Grades for Treated Wheat. Treated wheat shall be graded and designated according to the grade requirements of the standard applicable to such wheat if it were not treated, and there shall be added to, and made a part of, its grade designation a statement indicating the kind of treatment.

#### Garlicky Wheat

Sec. 23. Grades for Garlicky Wheat. Garlicky wheat shall be graded and designated according to the grade requirements of the standard applicable to such wheat if it were not garlicky, and there shall be added to, and made a part of, its grade designation the word "Garlicky."

#### Smutty Wheat

Sec. 24. Grades for Smutty Wheat. Smutty wheat shall be graded and designated according to the method described either in paragraph (a) or paragraph (b) of this section.

(a) Before the determination of smut dockage as provided in this

disregarded. The percentage of the "smut dockage," so calculated and stated, shall be added to the grade designation preceding the statement of dockage, if any.

(b) Smutty wheat shall be graded and designated according to the grade requirements of the standard applicable to such wheat if it were not smutty, except that (1) smut balls shall not be considered as foreign material other than dockage, and (2) when the amount of smut present is so great that any one or more of the grade requirements of the grades from No. 1 to No. 5, inclusive, can not be applied accurately, the wheat shall be classified as Sample Grade. For all grades there shall be added to and made a part of the grade designation, preceding the statement of dockage, if any, the word "smutty."

In testimony whereof I have hereto set my hand and caused the official seal of the Department of Agriculture to be affixed, this 13th day of April, 1918.

(Seal) D. F. HOUSTON,

Secretary of Agriculture.



#### ADVISORY COMMITTEE OF FARMERS

paragraph, the wheat shall be graded and designated according to the grade requirements of the standard applicable to such wheat if it were not smutty, except that smut balls shall not be considered as foreign material other than dockage. The loss in weight caused by the removal of smut from the wheat shall be ascertained by scouring, washing, or otherwise, and shall be calculated in terms of percentage based on the total weight of the grain free from dockage. The percentage so calculated shall be stated in terms of whole per centum and half per centum. A fraction of a per centum when equal to, or greater than, a half shall be treated as a half, and when less than a half shall be

**LEADERS OF AGRICULTURE IN SIXTEEN STATES RECENTLY ELECTED TO MEMBERSHIP IN NATIONAL COMMITTEE OF LEAGUE TO ENFORCE PEACE WHO WILL TAKE OFFICE AT PHILADELPHIA CONVENTION MAY 16, 17.**

E. P. Taylor, Director of the State Agricultural Extension Service, Tucson, Arizona.

Herbert H. Bowden, Editor and Publisher Arkansas Farmer and Homestead, Little Rock, Arkansas.

Geo. V. Smith, Editor New England Farms and Connecticut Farmer, New Haven, Connecticut.

Professor Harry Hayward, Dean



and Director Delaware College, Agricultural Experiment Station, Newark, Delaware.

P. H. Rolfs, Director of Agricultural Experiment Station and Extension, Gainesville, Florida.

H. E. Stockbridge, Editor, Southern Ruralist, Atlanta, Georgia.

H. J. Patterson, Director Maryland Agricultural Experiment Station, College Park, Maryland.

Dr. Kenyon L. Butterfield, President Massachusetts Agricultural College, Amherst, Massachusetts.

H. O. Pate, Director Service Bureau Mississippi Agricultural and Mechanical College, Agricultural College, Mississippi.

S. R. McKelvie, Publisher, The Nebraska Farmer, Lincoln, Nebraska.

Dr. E. F. Ladd, President North Dakota Agricultural College, Agricultural College, North Dakota.

John F. Cunningham, Editor, The Ohio Farmer, Cleveland, Ohio.

W. C. Allen, Editor, The Dakota Farmer, Aberdeen, South Dakota.

Dr. H. A. Morgan, Dean of the College of Agriculture of the University of Tennessee, Knoxville, Tennessee.

F. L. Houghton, Editor and Publisher The Holstein-Friesian Register, Brattleboro, Vermont.

Thomas Clark Atkeson, Master West Virginia State Grange, Buffalo, West Virginia.

#### ADVISORY COMMITTEE OF FARMERS

**Called to Washington to Consult with Secretary Houston and Food Administrator Hoover.**

A committee of representative citizens identified with agriculture in its various phases has been organized by Hon. D. F. Houston, Secretary of Agriculture, and Hon. Herbert Hoover, Food Administrator, to meet in Washington on call from time to time to advise with the Department of Agriculture and the Food Administration concerning agricultural and food problems as they arise. The first meeting was held on March 28. The members of the Committee are as follows: Henry C. Stuart, Elk Garden, Virginia, Chairman; C. S. Barrett, Union City, Georgia; Elbert S. Brigham, St. Albans, Vermont; W. L. Brown, Kingman, Kansas; Milo D. Campbell, Coldwater, Michigan; David R. Coker, Hartsville, South Carolina; W. R. Dodson, Baton Rouge, Louisiana; Eugene Funk, Bloomington, Illinois; N. H. Gentry, Sedalia, Missouri; Wesley G. Gordon, Humboldt, Tennessee; John Grattan,

Broomfield, Colorado; J. N. Hagen, Deering, North Dakota; Frank J. Hagenbarth, Spencer, Idaho; W. W. Harrah, Pendleton, Oregon; C. W. Hunt, Logan, Iowa; H. W. Jeffers, Plainsboro, New Jersey; Isaac Lincoln, Aberdeen, South Dakota; D. O. Mahoney, Viroqua, Wisconsin; David M. Massie, Chillicothe, Ohio; Wm. F. Pratt, Batavia, New York; George C. Roeding, Fresno, California; Marion Sansom, Fort Worth, Texas; C. J. Tyson, Floradale, Pennsylvania; Oliver Wilson, Peoria, Illinois.

#### NEW GRAIN AND HAY MARKET REPORTING OFFICE

**Bureau of Markets Opens Temporary Office at Bismarck, N. D.**

A temporary office of the Grain and Hay Reporting Service of the Bureau of Markets, U. S. Department of Agriculture, has just been opened at Bismarck, North Dakota. The purpose of this office is to assist in furnishing hay and feed to the districts in which there is a severe shortage, by serving as a clearing house for information to persons having feed for sale and to farmers desiring to pur-



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factories direct to you. The BEST roofing made at positively the lowest prices. I am a roofing expert—specializing in roofing materials and supplies—and I guarantee to save you money, give you a better roofing and a written guarantee.

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Now is the time to cover your roof—so send for the book today, sure!  
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Don't buy a roll of roofing from anybody, anywhere, including myself, unless you get a written guarantee. Don't take anybody's word about quality, make them prove their claims.

**These are 20 Year GUARANTEED ROOFS**



## Win the War By Preparing the Land Sowing the Seed and Producing Bigger Crops

**Work in Joint Effort the Soil of the U. S. and Canada—Co-operative Farming in Man Power Necessary to Win the Battle for Liberty**

The Food Controllers of United States and Canada are asking for greater food production. Scarcely 100,000,000 bushels of wheat can be sent to the allies overseas before the crop harvest. Upon the efforts of the United States and Canada rest the burden of supply.

**Every Available Tillable Acre must Contribute; Every Available Farmer and Farm Hand must Assist.**

Western Canada has an enormous acreage to be seeded but man power is short, and an appeal to the United States allies is for more men for seeding operations.

**Canada's Wheat Production last Year was 225,000,000 Bushels; the demand from Canada alone, for 1918, is 400,000,000 Bushels.**

To secure this she must have assistance. She has the land but needs the men. The Government of the United States wants every man who can effectively help to do farm work this year. It wants the land in the United States developed first of course; but it also wants to help Canada. Whenever we find a man we can spare to Canada's fields after ours are supplied, we want to direct him there. Apply to our Employment Service, and we will tell where you can best serve the combined interests

**Western Canada's help will be required not later than April 5th. Wages to competent help, \$50 a month and up, board and lodging.**

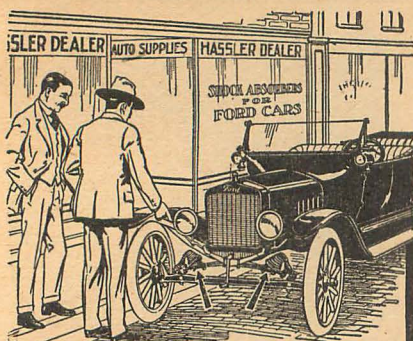
Those who respond to this appeal will get a warm welcome, good wages, good board and find comfortable homes. They will get a rate of one cent a mile from Canadian boundary points to destination and return.

For particulars as to routes and places where employment may be had,

Apply to

**U. S. Employment Service, Department of Labor  
FARGO, NORTH DAKOTA**





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FOR ten days we want to transform your Ford into a \$2,000 car. We will do this by putting on a set of Hassler Shock Absorbers.

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Hassler Shock Absorbers pay for themselves over and over again. Reduced tire bills, more miles per gallon of gasoline, one-third up-keep cost saved—all swell the total of Hassler dividends.

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chase hay or grain.

The office at Bismarck will cover the territory in North Dakota and also the northern part of Montana, and will be in touch with the Minneapolis office over leased wires. It will locate and quote prices on grain and hay held by producers or dealers, and transmit bids for grain and hay from buyers to those having feed for sale.

## Experiment Station

### Potato Varieties

In selecting the variety of potatoes to grow, the market demand, as well as how they are adapted to the state should be considered. The varieties that fill these requirements the best are Early Ohio, Irish Cobbler, Rural New Yorker, Green Mountain and Burbank.

### Store Eggs at Home for Winter Use

Fresh eggs put into a solution made up of 1 part water glass to 9 parts of boiled water (rain water is best) that has been cooled will keep fine till next winter. Two or three dozen can be bought now for what one dozen will cost next winter. By packing eggs now you can have them at Spring prices next winter. An earth-

en-ware crock is best. Keep in a cool place.

### Treat Seed Potatoes

Seed potatoes should be treated to kill the disease germs that may be on them. Soak one and one-half hour in a solution of one pound of formaldehyde to thirty gallons of water or else use five ounces of corrosive sublimate to thirty gallons of water. The latter is the most effective. It should be powdered and dissolved in a little warm water as it dissolves quite slowly in cold water. It will corrode metal so wooden or crockery vessels should be used. It is also very poisonous.

### Pig Contest Winners

The 1916 Pig Contest was won by Bruce Legee of Walsh County. He made a profit of \$35.20 on two pigs in 138 days. The two pigs weighed 85 pounds at the start and 493 pounds at the close of the contest. The 25 that stood highest in the contest secured an average gain of 170 pounds per pig in an average of 156 days. The main feeds used were barley, oats, screenings, shorts, skim milk and pasture. These boys by use of the feeds produced on the North Dakota farms grew spring pigs to a marketable size by fall and at a profit. A pig contest is also being held this year. Full information can be secured from the Extension Department Agricultural College, N. D., from the County Agent, Home Demonstration Agent or from the County Superintendent of Schools.

### Pasture Cheap Feed for Pigs

Pasture is a cheap pig feed while grains are high priced. A pig pasture will mean more than ever this year. Alfalfa is of the very best pasture crops. It starts early and keeps on sending up new tender shoots and keeps green thruout the summer. Sweet clover is also very good. In case neither of these are available then some crop as barley can be sown. Rape is another good plant for this purpose. Peas planted by May 1st will be ripe by August and

## Reboring and Grinding of Cylinders

This is the time to fit up your steam engines and gas tractors for the coming season

We can rebore and grind your cylinders, fit new oversize pistons and rings, make and fit new crank pins, straighten shafts, bore and bush gears and clutches or do any kind of machine work. Refue boilers and replace stay bolts. We carry in stock all sizes of stay bolts, patch bolts, bracket bolts, rivets, boiler flues, stay-bolt taps and boiler taps, shafting, shaft hangers, cast iron pulleys, woodsplitt pulleys. Write and let us quote prices on any work you have.

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P. O. Box 295.

Telephone 554 W.

## BORING AND REAMING OF CYLINDERS

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makes a good hog feed, while corn can be planted for hogging down. This will cut down on both the labor and feed cost.

#### How Deep to Plant Potatoes

Potatoes planted about 4 inches deep have given the best yields at the North Dakota Experiment Station and at the Williston Substation. The new potatoes form along the stem above the seed piece. When planted too shallow the potatoes will form too near the surface so that some will sunburn and the quality will be poor.

#### Location of Garden

The farm garden should be located near the house. A south slope warms up earlier and is better for early and warm climate vegetables, as late cabbage, cauliflower, celery, and root crops.

#### Soil for Garden

A sandy loam soil with clay subsoil makes a good garden soil, it is easily worked and produces smoother root crops. A heavy soil is more difficult to handle but because of its moisture retaining capacity, is most satisfactory for vegetables that require a large amount of moisture during late summer and early autumn and for all vegetables in a dry year. A heavy soil can be made more mellow and the water retaining capacity of light soils can be increased by the addition of manure.

#### Planting the Garden

The following vegetables can be planted as soon as the ground is in condition. Beets, cabbage, carrots, lettuce, onions, turnips, parsley, parsnips, peas, radishes, rutabagas, salsify and spinach but the following are frost tender and should not be planted before danger of frost is past which will usually be about May 20th for North Dakota: Beans, cauliflower, Swiss chard, cucumber, tomatoes, squash, musk melons and sweet corn.

## From the Nation's Capital

Richard Hamilton Byrd

#### War Value of Home Gardens

Just what there is back of the slogan, "Food Will Win the War," was explained this week by Dr. Bradford Knapp, of the Department of Agriculture, at a meeting held in Washington.

"You have all heard the slogan, 'Food Will Win the War,' but perhaps have not understood just what is back of it," he said. "You are asked to form a garden club, and each one who can do so is asked to cultivate a garden. The food problem is intimately connected with this war. In this country we have not understood what a food shortage is."

The world at this hour, the speaker declared, is facing a food shortage, and it is up to the United States and Canada to feed the allied world. Russia is blotted out of the list of food producers, he said. Even Germany is looking askance at her own victory there. Ukrania has no seed, Dr. Knapp declared, while Roumania, Montenegro, Italy, Belgium and northern France are out of the list of producers. Two hundred of France's 213 sugar factories are in captured territory, according to the speaker.

Food production and its shipment to the allies are intimately connected, Dr. Knapp said, and for this reason every home garden thruout the United States will allow more food to be grown for the allies and more cars in which to haul it to the seaboard.

"The minimum of shipping will come this summer," declared Dr. Knapp. "By June or July the lowest point in the shipping of the world will have been reached. Unless we feed England, France and Italy, the people of those countries will lose heart. If they lose heart, it will mean disaster over there, and disaster over there will mean war on this side of the At-

lantic. Each family that has a back yard can contribute to the winning of the war by raising food in that back yard."


Dr. Knapp finished his talk with practical garden hints, such as "Don't plant too much lettuce and too many radishes," and "Folks who expect to take a vacation should not start a garden."

#### Money in Garbage

By feeding garbage to hogs instead of burning it, Minneapolis, Minn., will save its taxpayers between \$50,000 and \$60,000 annually. This change of method became effective April 1. The city has been operating a \$110,000 incinerator and utilizing the steam produced in generating electricity. During 1916 the cost of operation, plus interest and depreciation, and allowing credit for electricity, resulted in a deficit of \$24,000.

For the remainder of this year the city will receive \$1.26 per ton for its garbage as hog feed, thus not only saving the former expense but bringing a revenue of between \$30,000 and \$35,000. This means a total saving to the taxpayers of between \$50,000 and \$60,000 per annum.

Other cities recently adopting hog feeding as a method of garbage disposal include: South Bend, Ind., and Madison, Wis., where incinerators were formerly operated; Cedar Rapids, Iowa and Salt Lake City, Utah, where the garbage was dumped; and Harrisburg, Pa., where the reduction



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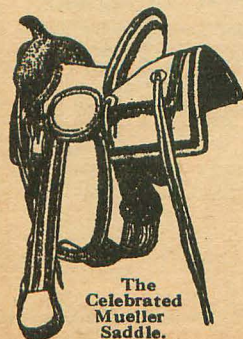
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In either car lots or small shipments. Mail samples for our bid.

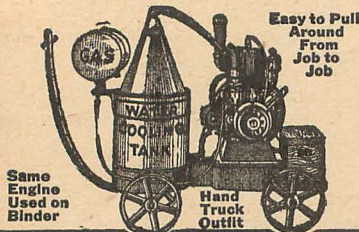
**Fargo Seed House, Fargo, N. Dak.**



of rendering process was employed. The aggregate population of these cities, including Minneapolis, exceeds 700,000 and the garbage produced by them will produce on a conservative basis 3,000,000 pounds of marketable pork per annum. Investigations by the Food Administration show that whereas garbage is not as "rich" in food value or as plentiful in quantity now as in former years, such refuse as

vegetable and fruit peelings, gristle and table and kitchen scraps inedible by humans, constitute a minimum below which the amount of city garbage does not fall. This material when freshly collected produces pork or good quality against which there is no market discrimination. Garbage utilization at present is more than a method of disposal; it is a patriotic duty.

The bill provoked the bitterest party strife of the session. The Republican members denounced the "scandal" as the worse perpetrated on Congress in years, while Southern Democrats replied that the bill had been prepared in consultation with the highest authorities of the War Department. They declared it would end this country's dependence on the Chilean nitrate supply.



### 4 H.P.—190 lbs.

The 4 H. P. Cushman Handy Truck is the most useful outfit ever built for farm work. Engine weighs only 190 lbs., and entire outfit only 375 lbs.

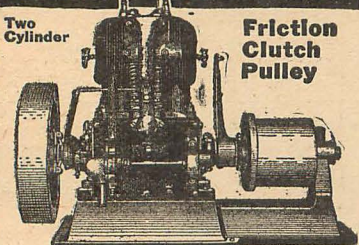
Besides doing all farm and household jobs, this 4 H. P. Cushman may be lifted from truck and hung on rear of binder during harvest to save a team. In wet weather it saves the crop.

### Light Weight Cushman Engines

Built for farmers who need an engine to do many jobs in many places instead of one job in one place. Throttle Governed, with Schebler Carburetor. Run very quietly and steadily—not with violent explosions and fast and slow speeds like old-style heavy-weights. Engine Book free.

**CUSHMAN MOTOR WORKS**  
881 N. 21st Street Lincoln, Nebraska

### 8 H.P.—320 lbs.



### Bill for Nitrate Plant

Despite protests from the Republican side of the House, led by Representative Longworth, of Ohio, who charged that the nitrate bill was a camouflage to have the government build a great fertilizer plant for private interests after the war, the bill for development of Muscles Shoals was passed by the House this week.

The bill provides for condemnation of several parcels of land near the site of the federal-owned plant for fixation of atmospheric nitrogen, because the government has been unable to induce certain landowners to part with their holdings at prices the government deemed adequate.

### Farm Work by Soldiers

An outline of the procedure by which soldiers may be furloughed for work on farms has been announced by the War Department. Applications may be made by the soldiers themselves, their relatives, or by farmers desiring their services. When application is made by farmers, it is provided that the men must be willing to accept the furloughs, and that the traveling time from their post to the places of labor shall not exceed twenty-four hours. Farmers are advised to make formal application thru the office of the provost marshal general.

### Chemical Value of Sprouted Oats

Green sprouted oats have been widely exploited in recent years as a succulent food for poultry. Indeed, there are some so-styled "Poultry systems" on the market which consist little else than the use of this food. The Maine Station has been using sprouted oats in its poultry studies for a number of years. In the earlier work the analyses of unsprouted oats were used in computing the rations, but as the amount of sprouted oats in the ration used at the Maine Station were considerably increased it became desirable to know more concerning the composition of sprouted as compared with unsprouted oats.

From the tests it was found that sprouted oats at the proper stage to feed will carry about 77 per cent of water, 2.8 per cent protein, 3 per cent crude fiber, 1.3 per cent fat and 16 per cent nitrogen free extract. There is an actual loss of dry matter in

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FARMS IN  
WESTERN  
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## Get under the Shower of Gold

coming to farmers from the rich wheat fields of Western Canada. Where you can buy good farm land at \$15. to \$30. per acre and raise from 20 to 45 bushels of \$2. wheat to the acre it's easy to make money. Canada offers in her provinces of Manitoba, Saskatchewan and Alberta

### 160 Acre Homesteads Free to Settlers

and other land at very low prices. Thousands of farmers from the U.S. or their sons are yearly taking advantage of this great opportunity. Wonderful yields also of Oats, Barley and Flax.

Mixed Farming is fully as profitable an industry as grain raising. Good schools, markets convenient, climate excellent. Write for literature and particulars as to reduced railway rates to Supt. Immigration, Ottawa, Canada, or to

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Clifford Block - Grand Forks, North Dakota

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## FIRST Get Galloway's 1918 Book

Look over this helpful money-saving Spring buying guide, where every page is a bargain. **Before You Buy a Separator, Engine, Spreader or Tractor**



Contain the implements you need at money-saving prices. Galloway proves one price is all that you should pay. Galloway's prices are the lowest for the best implements.

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Buy from Galloway and buy from the maker. This plan and tremendous business make my prices so low when compared with the best grades sold the other way. I sell right from the factory floor at the very lowest factory price. **WRITE TODAY!** Write at once, a postal will do, and ask for Galloway's 1918 book. It will save you many hundred dollars on supplies. Write today.

**WM. GALLOWAY COMPANY**  
Box 987 Waterloo, Iowa



sprouting oats and the only advantage of the process is to produce a succulent green food at times when grass or other green foods are not available.

### Iowa Doing Her Bit

"Iowa is doing her duty in the war, and Iowa farmers are as patriotic as any class of people on earth," said former United States Senator Lafe Young, who was in Washington this week. "By doing her duty I mean that in an agricultural way Iowa is going to show a very greatly increased crop production this year, and that is something that we have got to do all over this country if we are to win the war. Iowa is not a wheat state, but the acreage in wheat this year will be double that of last year. From two to ten acres are being plowed by farmers all thru the state. The planting season nearly over, and from personal observation I can state that the wheat acreage this year will be far in advance of anything we have ever known in Iowa. Likewise we are planting more corn, and, of course, this will mean an increase in the production of hogs and cattle. Our farmers understand now that it is highly important that they shall do their utmost to increase the food production, and they are going to do it."

### War Garden Drive Opens With Rush

Formal opening of the 1918 war garden campaign on April 1 found hundreds of thousands of men and women, boys and girls, all over the United States, enrolled in the army of the soil. April 1, selected as the date for the official beginning of the war garden drive, it was stated at the Department of Agriculture, and at the office of the National War Garden Commission, found at least three times as many individuals and organizations pledged to plant and cultivate home vegetable gardens this season as ever before. The latter commission, of which Charles Lathrop Pack is head, declared that figures showing a 300 per cent increase over last year in the number of tillers of the soil was extremely conservative.

The fact that market gardeners in the region from which cities normally draw their supplies have declared they will be compelled to reduce their acreage this summer because of labor shortage has had a powerful influence in the campaign for greater home production of vegetables. With thousands of young men drawn from the farms and market gardens into camps and cantonments or into the ranks of those employed on huge government contracts, the market gardeners this

spring found themselves unable to obtain the labor absolutely necessary to plow, plant and cultivate the truck gardens.

Probability that the railroads, under the necessity of using all their rolling stock in the transportation of troops, materials and supplies for shipment abroad, would greatly curtail, if they did not discontinue entirely the handling of perishable stuff such as fresh vegetables, has further stimulated the home garden movement.

Slogans innumerable have been put forth to stimulate interest in war garden work. "Food F. O. B. the kitchen door" is one that has been spread broad cast by the war garden commission. "Speed up and spade up" is another. "Food Must Follow the Flag" is the caption of a striking poster that is being used in the war garden publicity campaign. "From your garden to your table" is still another of the catchy lines used to induce office men and other city dwellers to plant and cultivate their own vegetable gardens.

"A well-planned and carefully tended garden is one of the most pleasant and satisfying pieces of work in which the city or suburban family can utilize its spare time," says H. M. Conolly, of the Department of Agriculture, who is spreading the doctrine of home vegetable gardens. "If the soil is properly prepared and a little attention is given the garden as required, the work need not become a burden on the members of the household.

"Gardening the back yards and vacant lots of the cities and towns of our country is a worthy endeavor, because it utilizes the spare time and labor of persons employed at other work and brings to the family table a greater diversity of food. It also eliminates many undesirable views and eyesores, putting in their places pleasing green growing crops.

"Gardening is a patriotic work resulting in both pleasure and profit. It gives pleasure not only in the work with the growing plants, but in the producing of high-quality, crisp, fresh vegetables for the family table. It gives profit by producing vegetables cheaper than they can be purchased and by reducing the need for more expensive foods. Gardening is profitable also because better health is secured by the exercise in the open air and the use of more vegetables in the diet. Gardening, in fact, should be an important part of the city and suburban life because of the interest it adds to the lives of people little used to country surroundings. It is interesting to the young and the old, and

to women and girls as well as men and boys. There is no better way to keep the boys off the streets and out of mischief than to give them a plot of ground on which they can make a garden, the results to be their very own. Very young children can be interested in garden work. One 5-year old boy in Washington last year planted several kinds of seed and grew the plants to maturity."

### AN OPTION ON IDLERS

By Clarence DuBose

Here is one way of securing farm labor. It works. It gets results in Chickasha, Oklahoma. And in any county it will help to some extent, at least, in relieving the farm-labor shortage.

The farm demonstration agent in Grady County, of which Chickasha is the seat, arranged with the Chief of Police and the Judge of the City Court to give him an "option" as it were, upon all the vagrants and idlers arraigned. The county agent promised to use his best efforts to secure a job for every man who expressed a willingness to go to work on a farm. Transient vagrants and local idlers, alike, were unhesitant in deciding. Given a choice of jail or the county road or of hard farm work at fair wages, they became enthusiastic "back-to-the-farm" advocates.

The county agent has an arrangement whereby the city and county authorities feed these men until they are placed on farms. And that, usually, is very quickly. The agent is in touch with farm-labor needs all over the county and has been able to place all promising material without delay. In one day during the last harvest season he furnished farmers with eighty-nine men, and upon several occasions he has furnished sixty to sixty-five farm workers in one day. These men are free agents entirely. They work voluntarily for the wages agreed upon. They can leave if they desire. But there is one thing they can not do—remain in Chickasha, Oklahoma, and not work.

Farmers should not expect owners to lend expensive tools or machinery. They cost money; and careless hands can soon make breaks that are never paid for.

Do not have any land to "lie out" and grow up in weeds.



# North Dakota Farmer

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**H. O. WERNER**

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**Vol. 19 April 1918 No. 10**

Do you realize the condition of the flax market? North Dakota must put in more land to flax or the flax crop of the country will suffer, since this state raises the greater part of the flax. At least put in a small piece to that grain.

The farmers, who constitute the great majority of the people in this district, are vying with the professional men, merchants and bankers in going over the top in the liberty loan drive. Watch the returns from the Ninth District.

During the first year of the Federal Farm Loan System nearly 3000 farm loan associations have been formed with a total membership of over 50,000 farmers, who have borrowed \$80,000,000. It has been demonstrated that the expense of operation can be kept within one-half of one per cent.

General orders No. 31, issued by the War Department this month come very close to the farmer. By applying to the local board of registration suitable blanks may be obtained and furlough will be granted to enlisted men below the rank of first sergeant to enable them to engage in seeding and harvesting.

Much time can be saved by allowing seed potatoes to sprout. Place them in a warm place, then cut the potatoes leaving one sprout on each piece and plant by hand, having the sprout pointing upwards. Prof. J. T. Rosa, Jr., of the Missouri A. C. claims that at least ten days may be gained by this method.

While we are somewhat proud of North Dakota's record in other war activities, she does not rank well with other states in the sale of Savings and Thrift Stamps. Her average is but 57 cents per pupil and she

ranks 46, whereas Nebraska, with an average of \$11.06 per pupil, ranks first and South Dakota ranks 14 with an average of \$1.82.

The Woman's Land Army has been organized in twenty states and has the hearty approval of President Wilson. Thousands of women are registering for farm labor this year. What a boon to the tired farmer's wife to receive aid during the whirl of the harvest season! Will the farmer accept the aid thus offered? We shall await the outcome of this seemingly whole-souled offer of service.

If Representative Norton can have his way the farmers will not be imposed upon by the manufacturers of farm machinery. He has introduced a bill authorizing the President to fix the price of farm machinery, and to take over the plant belonging to a firm that fails to comply with the prices and regulations ordered by the President.

Agents have been actively exploiting butter "mergers," as the devices are called. The process is to merge milk with a quantity of butter. Thus the purchaser puts back into the butter what the careful buttermaker has eliminated, to make a product which, if put upon the market, would be known as adulterated butter. Better let the digestive system do its own "merging."

In the near future another drive will be made for the Y. M. C. A. at the camps, cantonments, on the sea and in France. None have written more enthusiastically of the work of that organization than the boys from our farm homes. On the other hand from the farmers have come most generous donations in the past. As the battle at the front grows more desperate the work of that institution will become more strenuous and it is up to us who remain at home to give liberally in the coming drive.

The wonderful claims of the vendors of "bug-resistant" potatoes have not been verified by the Experiment Station, altho it must be admitted that at the end of August there were scarcely any bugs on the vines—for the reason that they had been stripped of leaves. Buy the "bugless" variety if you please, but **keep on spraying**. So when the soapbox haranguer promises you speedy deliverance from your woes, **keep right on** seeding and harvesting and rotating and diversifying just the same.

Were an enemy secretly to inject a seed of destruction into every egg placed upon the market, how long would that enemy remain at large? Is your rooster at large impregnating every egg with a germ that hastens the decay of the eggs you are marketing? Shut him up or string him up.

The proposal to guarantee a minimum price of \$2.50 a bushel to the farmers for the 1918 wheat was voted down by Congress. While we would rejoice with the farmers if such a price could be obtained, we realize what such an advance in price would mean to the working man whose wages have not kept pace with the price of wheat.

Keep that tractor busy night and day. When you have finished your own work, loan the machine to your neighbor, under proper management, at a fair rental. This war ought to bring about neighborly co-operation, not only in politics but in the home and in the field. Do not let a horse, a plow, a binder, or an animal remain idle so long as there is a plot in the community untilled, or a crop unharvested. Idleness in land, machine, man or beast is unpatriotic.

Can nine-tenths of those who claim that the government by fixing the price of wheat at \$2.20 is defrauding them tell from their books the cost to them of a bushel of wheat? It may be interesting to know that whereas the things the farmer buys have increased in price 60%, the products of the farm from which the farmer derives his livelihood have increased 90% since 1909. Certainly the farmers should be contented with their lot, and we believe the reasonable ones are.

Sworn Statement of North Dakota  
Farmer made under new postal laws.

Editor, W. G. Crocker, Lisbon, N. D.

Publisher, W. G. Crocker, Lisbon, N. D.

Owner—W. G. Crocker, Lisbon, N. D.

There are no bonds, mortgages or other securities outstanding against the North Dakota Farmer.

North Dakota Farmer,  
By W. G. Crocker,  
Publisher.

Sworn to and subscribed before me,  
this 1st day of April, 1918.

W. F. Grange.

(Seal)

My commission expires Nov. 23,  
1922.



# Livestock Department

## FARM AND STOCK NOTES

N. J. Shepherd

Long and hard pulling makes wind-broken horses.

Cleanliness will prevent scratches and other diseases.

Health and thrift are the first elements of success with pigs.

Reject a horse with a long slack back; it will not carry weight.

In the dairy discard all cows that develop objectionable habits naturally.

If a cow is pinched for food she will not yield a profitable quantity of milk.

Never undertake more than you can do at the right time and in the proper manner.

With all stock the profitable line of production is to maintain good health with early maturity.

Reject a horse with flat feet, very large or very small feet. Medium size is the best.

The more condensed and the nearer finished the products are the better will the farm pay.

Holding a brood sow because of high breeding when she fails as a breeder but adds cost to a bad investment.

No animal of any breed or species of domestic animals will uniformly produce young that are all of a superior order.

Milk can be influenced for the bad quite as much thru the air the cow breathes as the food she eats.

In the growing of first class pork the degree of cleanliness governs, to a very considerable extent, the quality of the product.

Bran is rich in bone and muscle-forming elements of food and it also serves another valuable purpose in keeping the bowels open.

The farmer cannot be considered really successful, unless besides paying expenses and a profit if possible in addition the farm is steadily gaining in value.

To a very considerable extent the degree of ability a bull has to stamp his get with his own image is a true exponent of his worth.

Choice goods always bring choice prices and the clear profits in farming often lies in the matter of suiting the trade and getting the best prices going.

Good cream rising means keeping the milk sweet as long as possible and this is possible by cooling it down quickly and keep the temperature uniformly low.

An important item with the sow that is about to farrow is a warm dry bed. Rheumatism both with the sow and pigs is the result of damp, filthy beds.

That producer is most successful who keeps himself in the line of the market, who gives some thought to the problem of how he can best find the buyer.

One of the things that make the farmer independent is his ability to supply not only many of the necessities of life but also many of those luxuries which the soil furnishes.

The man who makes horse-raising pay best is the man who raises horses that suit the consumers of the best class of horses, and that means raising nothing but the best.

If pigs are to be fattened and marketed young they must be taught to eat as early as possible and by the time they are four weeks old they should be eating regularly.

Horses which are judiciously fed and well-groomed will stand double the amount of hard work that they would under careless feeding and as a rule are liable to live to a much greater age.

The farmer who makes his business pay must have something to sell each year that will bring him the cash. The more compact the form in which he sells it the more profit does he make.

It is doing as little as possible for milk, cream and butter, but doing what needs to be done at the right time and with dispatch that makes the firm, granular butter that brings the best price in market.

The farmer who raises the best crops and does it with the least labor and cost is generally the man who uses his judgment in regard to the time of preparing the ground and cultivating the plants regardless of what what others may say or do.

One-half of the difficulties in making good butter lies in the care of the milk and not in the mode of churning. From the time the milk is drawn from the cow until the cream is ready to be churned the strictest care is needed to keep it clean and free from exposure to odors.

With dairy cows they first of all have to live before they can produce any milk at all from the food they eat and about two-thirds of their food goes to keep them in fair condition before any milk can be made from it. A poverty stricken cow must first of all supply her system before she can possibly give rich milk and plenty of it. So that a cow wintered in a poor condition does not give her full quota of milk until she has recovered in the spring what she lost in winter.

## MEAT POLICY TO UPHOLD GUARANTEES TO FARMERS

Any recommendations made by the special meat policy committee appointed by President Wilson will be based on the maintenance of all guarantees given the farmers by the food administration, it was learned at the

## ENVILLA STOCK FARM

Cogswell, N. D.

Will quote you special prices at any time on Angus Cattle, Feeding and Breeding Sheep, Shetland Ponies, Duroc Jersey Hogs, Wolf Hounds, Collies, Rat, Bird Dogs and other breeds, Angora Cats. All varieties of chickens, turkeys, geese, ducks, guineas, pheasants, rabbits, ferrets. Pets. Live Foxes, Skunks, Mink and Badgers.

## Bixby's Red Polls

My herd is headed by Rolland, whose sire, Teddy's Charmer, was senior and grand champion bull, also whose dam, Suzie 2nd, was senior and grand champion cow at the 1917 Chicago International Stock Show. My former herd bull was J. D. Merryweather, No. 24396, was the son of J. D. Millie, A. R. Grand Champion cow at Minnesota and Montana, in the 1915 show and won the milk and butter contest, with a butterfat record of 750 pounds.

J. S. BIXBY, LISBON, N. D.

## POLL DURHAM AND SHORTHORN BULLS

The Pleasant Ridge Stock Farm has some good Poll Durham and Shorthorn Bulls for sale. H. A. Strutz, Proprietor, Thompson, N. D.

Our consignment to the Lake Forest Sale May 16th, consists of Starlight's Excelsior of Jean Du Luth Farm, 31 times a champion at three years old. He is a splendid proven sire, a May Rose bull, and a half brother to the class leader Coronet. We guarantee him sound. Jean Du Luth Farm, Inc., Nickerson, Minn.

## Northwestern Thorobred AIRDALE KENNELS

HUNTER, - NORTH DAKOTA  
Rev. O. L. Anthony, Proprietor  
DOGS & PUPPIES FOR SALE REASONABLE

Now is the TIME and this is the PLACE to buy

## Shetland Ponies FOR THE CHILDREN

Write your wants to  
DR. J. A H Winsloe COOPERSTOWN, N. D.

Mention the N. D. Farmer



Second session of the committee this week. While the meetings are behind closed doors, it is understood that the food administration representatives are insistent that all guarantees given so far, including the price of \$15.50 for hogs, be upheld. Sentiment for government operation of the packing in-

dustry, has developed in the committee, but this is meeting with stiff opposition from some of the members.

The question of price fixing of meats has not yet been touched upon, but will come up for discussion, along with the question of regulation of the packers' profits.

## CLASSIFIED ADS.

### One Cent a Word

Small advertisements will be classified under appropriate headings at the low price of one cent a word for each insertion. Cash must accompany all orders. Each initial or number must count as one word. TRY IT HERE.

**FOR SALE.** Pedigreed Airdales, 3 months old, \$15.00 each. The best all-round dogs living. For stock, sporting, or watch dogs, buy an Airdale. Lock Box 214, Hunter, N. Dak.

**TEACHERS WANTED** for all kinds of positions. Free enrollment. Send for blanks. School officials supplied with competent teachers. Write for list of candidates. Eastern Educational Bureau, New Egypt, N. J.

We offer choice registered **POLLED DURHAM BULLS** for sale.  
**R. E. STRUTZ - BISMARCK, N. D.**

Breeders of Shorthorn Cattle and Shropshire Sheep. Avon Superior No. 433060 heads the herd **Knight & Newton Bros., Grandin, N. D.**

**Knightdale Shorthorns.** Avon Superior head our herd. We have bulls of serviceable age for sale—red, roans and white's. Write or visit-us. **KNIGHT & NEWTON BROS., Grandin, N. D.**

**RESTAURANT FOR SALE.** Good paying proposition for right party. Reason for selling is, that claim demands our attention. Write or call on, **Mrs. John Leibach, Westby, Mont., Bx281**

**EXPERT LITERARY SERVICE.** Famous staff writers, authors and poets will write your stories, speeches, poems, plays, songs, etc. You may use as you please with copyright privileges. Young authors' work revised and rewritten. Charges reasonable. Literary advice and counsel. Folder free. Eastern Educational Bureau. Literary Dept. New Egypt, N. J.

## MISSOURI AUCTION SCHOOL

FREE CATALOG KANSAS CITY, MO.

**WANTED.** Live Foxes, Skunks, Mink and Badgers, any time.  
**Envilla Stock Farm, Cogswell, N. D.**

**FOXES WANTED.** 100 Young Reds and Old Ones. Ross Brown McFal, Ala.

**POTATO SEED.** Your chance of life time to get started in pure bred state certified potatoes with cheap seed. We have Certified Green Mountains and Rural New Yorkers from 30-acre fields averaging 350 bushels to acre. Car lots or less—Small lots \$1.25 bushel. Wire for car lot price. **Rush County Potato Grower's Association, G. M. Householder-Ladysmith, EWisc.**

**SEED CORN.** A limited amount of good, high-testing, home-grown Minnesota No. 13, White Rustler, and Northwestern Dent. The best, most northern grown seed corn obtainable this season. Every bushel sampled, numbered, tested and guaranteed. Write for tests and prices. Our supply will not last long.  
**Johnson & Arneson, Dassel, Meeker Co., Minn.**

Seventy Bushels 1916 Early White Dent Seed Corn; bushel \$8.00, high germination. Forty bushels Bloody Butcher early seed corn, bushel \$8.00. Dakota grown alfalfa seed, bushel \$15.00. August Bernhard, Parkston, S. D.

**WANTED:** To hear from owner of good farm or unimproved land for sale. C. C. Shepard, Minneapolis, Minnesota.

Wanted to hear from owner of good farm for sale. State cash price, full description. **D. F. Bush, Minneapolis, Minn.**

**30 DIFFERENT MAGAZINES.** All late issues. Yours for only 25 cts. prepaid. Great help in teaching Satisfaction guaranteed. Eastern Bureau, New Egypt, N. J.

## CONSERVING FERTILITY

### Fertility Without Livestock

It is possible to maintain the fertility of the land without live stock by the proper rotation of crops and the use of green manures supplemented with lime and other chemical fertilizers as may be required, but the average farmer has not done it and probably will not do it under our present voluntary system of land tenure.

### Save the Liquid Manure

Investigations by experiment stations have shown that the urine voided by animals contains over half of the fertilizing value of the excreta—about three-fourths of the total nitrogen and four-fifths of the total potash. Practically all the phosphorus is found in the solid manure. It has been shown also that the nitrogen and potash in the urine is more readily available to plants than that in the solid excrement. The mixing of solid and liquid manure, therefore, insures not only a richer fertilizer but a better balanced fertilizer.

### The Waste of Liquid Manure

The waste of liquid manure may be largely prevented by the use of sufficient bedding, or in case of stabled cattle, by the construction of manure cisterns which should be provided with special diaphragm pumps for removing the liquid manure to the field sprayer or distributor now manufactured for this purpose. The mixing of the liquid with the solid manure and bedding and hauling directly to the field is doubtless the plan which is best suited to the average farmer, or with a concrete manure pit, the liquid manure may be run into the pit with the solid manure and thus preserve both, since the liquid prevents the fermentation and firing of the solid manure.

### Hauling Manure Directly from the Stable

Hauling manure directly from the stable and spreading it on the field has been found to give the least loss of manurial substances. This practice has the advantage also that the manure is handled only once. When this method can not be used, especially convenient constructed places to store manure should be provided.

### A Surface Dressing of Manure

A surface dressing of manure aside from its plant food value has also a mulching value in conserving soil moisture and in giving winter protection to grasses, clover, alfalfa and small grain crops.

### Manure Spread on Plowed Land

Manure spread on plowed land and worked into the soil by cultivation gives the best results. It is advisable to disk before plowing, after spreading manure, in order to mix it more thoroughly and evenly with the soil. As a rule, the plowing under of the manure should be rather shallow since deeply turned manure may not decay properly and tends to produce a loose dry seed bed.

### The Danger in Plowing Under

The danger in plowing under a heavy coat of manure is that the manure tends to break the capillary connection of the soil with the subsoil causing the surface to dry out, resulting in the "burning out" of the crop in a dry season.

### A Light Application of Manure

A light application of manure yields larger returns per ton of manure used than does a heavier application. This has been proven by the trials at many experiment stations. Heavy applications of 30 to 40 tons per acre give the largest yields, but when the amount of manure is limited and the area of land is large, light applications of six to ten loads per acre give the most profitable returns. Very beneficial results may be secured by giving a very light dressing of one to three loads per acre to the fields which are to be plowed for green manure. The manure doubtless increases bacterial action and hastens the fermentation and decay of the organic matter.

### To Spread Manure Evenly and Finely

To spread manure evenly and finely is very important. The well pulverized and evenly distributed manure as spread by a good manure spreader is more readily incorporated with the soil and gives quicker and greater returns than can be secured from hand spread manure. A number of comparative tests indicate that two tons of manure applied with a manure spreader will have the efficiency of three tons spread with a fork.

### WHY USE CONCRETE? BECAUSE

It is easily made sanitary and kept so. It is always cheaper in the end.

It utilizes home labor and materials. It takes no paint or repairs.

It is wind and earthquake proof.

It is warmer in winter and cooler in summer.

It can be made fireproof.



## RECEIPTS AT STOCKYARDS IN MARCH

### Cattle and Hogs Show Increases Over March a Year Ago

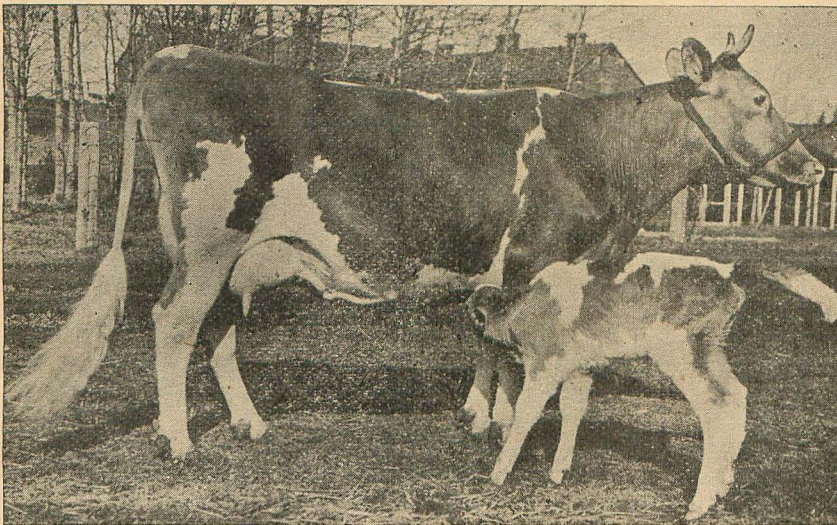
Receipts of cattle and hogs at stockyards during March of this year were greater than receipts in March, 1917, according to the monthly stockyards report issued today by the Bureau of Markets, United States Department of Agriculture. Receipts of cattle and hogs for the first three months of 1918 exceed receipts for the same period in 1917.

March receipts at 56 yards were: cattle, 1918, 1,688,029; 1917, 1,324,995; hogs, 1918, 4,372,136; 1917, 3,367,588; sheep, 1918, 1,223,120; 1917, 1,232,543.



More cattle and hogs were slaughtered at 45 cities in March, 1918, than in March, 1917. The figures, giving 1918 totals first, were: cattle, 997,115, 810,507; hogs, 2,625,400, 2,220,476; sheep, 653,782, 782,552.

Increased receipts and shipments of



JEAN DU LUTH CORONET No 52816

Finishes her record April 21, 1918 and has her calf at side. Barring accident will land first in class E. E. First prize Minnesota State Fair while on test. Winner of the Dairy Contest at Illinois State Fair for Guernseys under 3 years old. Winner of the 2-day butter contest at Louisiana State Fair for cows under 3 years old. Winner of the Silver Cup for best 2-year-old bred by exhibitor National Dairy Show, 1916. Winner Silver Cup Waterloo Dairy Cattle Congress for best 2-year-old Guernsey.

### Total Shipments from Stockyards

Shipments of cattle, hogs, and sheep from stockyards all showed increases during March, 1918, over March, 1917, and the first three months' total for cattle and hogs was greater in 1918 than in 1917. Total shipments for March, 1918, were: cattle, 642,910; hogs, 1,707,170; sheep, 552,397. The March, 1917, figures were: cattle, 469,187; hogs, 1,151,787; sheep, 439,840. Stocker and feeder shipments as a class, included in above figures, also showed increase in March, 1918, over March, 1917.

horses and mules at 43 cities are shown by the report, the March figures, with 1918 given first, were: receipts, 117,768, 109,108; shipments, 114,076, 107,109.

### GOVERNMENT LIVESTOCK REPORT

The Bureau of Crop Estimates thru its State Field Agent issues the following report covering live stock losses and condition of live stock for North

Dakota, and for the United States on April 1, 1918.

The spring survey of live stock conditions in North Dakota show that all classes of stock have wintered well as a rule, but owing to the more or less curtailed supply of feed are thinner than usual. Conditions of stock is

**Don't Wait Until Your Horse is Stolen Before You Lock the Barn**

## DISEASES

### OF FARM ANIMALS

in most cases can be prevented by taking intelligent measures. The author lays special emphasis upon the causes, prevention, and early recognition of common diseases and unsoundness. Animal loss through disease will be brought to a minimum if every farmer uses this great book as his guide. Save a young pig, a lamb, or a calf and the book will have been a great profit-maker. It is not an expense but an investment. It is the Live Stock Owner's duty to purchase

### COMMON DISEASES OF FARM ANIMALS

By R. A. Craig  
D.V.M.

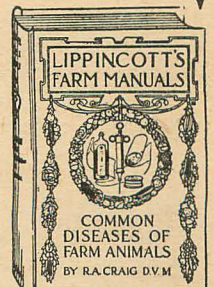
Professor of Veterinary Science, Purdue University,  
Chief Veterinarian Purdue University Experimental Station.

315 pages. Ill. Octavo.  
Handsome Cloth.

**KILL THE GERMS AND SAVE YOUR STOCK**

Price, \$1.50

**NORTH DAKOTA FARMER LISBON, N. D.**



## IOWA CREAM SEPARATOR

The "IOWA" Cream Separator is the only Separator with the Patented Curved Disc Bowl, the World's closest skimming device. The "IOWA" Separator

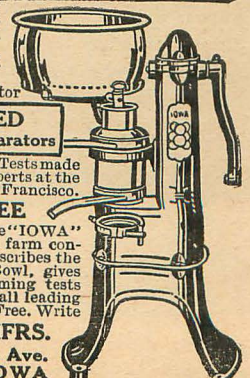
### OUTSKIMMED All Competing Separators

In the official Skimming Tests made by the jury of Dairy Experts at the last World's Fair, San Francisco.

### FACTS Book FREE

"FACTS" tells why the "IOWA" skims closest under all farm conditions. "FACTS" describes the famous Curved Disc Bowl, gives results of actual skimming tests made on farms and by all leading Agricultural Colleges. Free. Write

**ASSOCIATED MFRS. CO., 613 Mullan Ave. WATERLOO, IOWA**



## PATENTED CURVED DISC BOWL



less favorable in north western part of the state than other sections as shortage of all feeds was more acute there. Fortunately the past winter was reasonably mild with light snow-fall especially in the western part of the state. Stock grazed out doors a great deal of the winter and materially relieved the hay situation with numerous farmers who harvested a very light hay crop. Very few outbreaks of hog cholera reported and disease has been kept under control remarkably well. Hog losses very light. Disease and exposure losses of all classes of stock with the exception of horses have been below average. Owing to the unusually favorable winter exposure losses have been very light. Cause of horse losses being slightly above average is due chiefly to heavy mortality of old horses especially in the northwestern quarter of the state. Large part of the old stock was not able to winter on dead grass and straw, and were not considered valuable enough to warrant buying extremely high priced grain and hay to bring them thru. With possible exception of eastern counties the spring condition of work horses is not quite as good as usual owing to the feed situation. Fortunately spring work opened up from two to three weeks earlier than usual under ideal weather conditions with soil in ideal condition for field work, thus removing the necessity of usual spring rush in order to have grain seeded early. Furthermore the tremendous acreage of rye sown last fall has lessened the spring sown acreage noticeably. Owing to feed shortage in the western

	North Dakota			United States		
	1918	1917	10 yr. average	1918	1917	10 yr. average
Winter rye, condition %	83	89	85	85.8	86	89
Loss per 1000						
Horses, disease & exp.	20	20	19	16.5	16.9	19.4
Cattle, disease	15	19	16	18.2	19.4	20
Cattle, exposure	13	19	14	13.3	14.6	14.3
Sheep, disease	16	20	19	19.8	21.8	24.4
Sheep, exposure	10	22	24	19.2	32.4	30.2
Lambs, disease and exp.	37	50	42	49.3	60.2	58.8
Swine, disease	16	30	25	42.1	48.6	67.5
Per cent of number						
Brood Sows, on farms a yr. ago	90	92		109.5	96.5	-----
Live Stock Condition:						
Horses.....	91	94	96	96.2	95.8	96.2
Cattle.....	92	93	96	95.6	94.4	95.2
Sheep.....	95	95	97	96.9	93.8	95.4
Swine.....	95	95	97	96.3	95	93.7

part of the state the stubbled in acreage will be larger than usual. It is encouraging to note that the number of brood sows has not decreased more than 10% in spite of high prices and scarcity of feed grain. Sale of hogs

## Poultry Department

### USE STANDARD POULTRY

Standard poultry, as the phrase is commonly used in America, is poultry bred to the standards established by the American Poultry Association.

The object of making standards for poultry is the same as the object of making standards of weight, volume or quality for any product or commodity;—i. e., to secure uniformity and establish a series of grades as a basis of trading in the article.

In making standards for poultry which apply in the process of production the principal points considered are size, shape, and color.

#### Characteristics of Egg Breeds

The breeds mentioned as of the laying class, with the exception of the Minorca, are relatively small, very energetic and lively, mature early and are easily kept in good laying condition. The Minorca is of larger size and modified somewhat in the other particulars mentioned, yet has more the character of the laying class than of any other.

#### Characteristics of Meat Breeds

In the meat breeds there is not the same uniformity of type that is found in the laying breeds. The three mentioned are all quite different. The Brahma is most popular because it is at the same time the largest and the

most rugged in constitution. The Dorking excels in quality of meat but is generally considered somewhat lacking in hardiness. The Cornish is rather hard-meated but being very short-feathered has its special place as a large meat-producing fowl in southern sections where the more heavily feathered Brahma does not stand the summers well.

#### Characteristics of General-Purpose Breeds

Among the popular breeds of the general-purpose class there are also differences in type, adapting breeds to different uses. The Plymouth Rock is generally regarded as the type meeting the widest range of requirements in the general-purpose class.

The Wyandotte is a little smaller and earlier maturing but still very well meat and easy to fatten.

The Rhode Island Red has nearly the same standards of weight as the Wyandotte but is a more active bird, not putting on fat so readily; consequently it approaches the laying type and is popular with those who want eggs and meat, but want eggs most.

The Orpington is at the other extreme in the general-purpose class, being a heavier, meatier fowl than the Plymouth Rock.

#### A Breed for Everyone and Every Purpose

Such a list of breeds affords so wide a range of choice that poultry keepers can always select a standard breed better adapted to their locality and their purpose than any nonstandard stock they can procure, and having the further advantage of reproducing true to type.

#### Classification of Useful Breeds

The common classification of breeds according to their place in the general scheme of poultry production, divides them into three principal classes; namely, laying breeds, meat breeds, and general-purpose breeds—that is, breeds that are not as ready and persistent egg-producers as the laying breeds, and not as meaty and as easy to fatten as the meat breeds, yet combine in one individual fowl very good laying capacity with very good table quality.

The Leghorn, Minorca, Andalusian, Ancona, and Campine are well-known breeds of the laying class; the Brahma, Dorking, and Cornish of the meat class; the Plymouth Rock, Wyandotte, Rhode Island Red and Orpington of the general-purpose class.



## TO EGG THE KAISER

Keep the layers for laying! Uncle Sam has drafted the hens and pullets of America for his great Army of the Home Guard.

Every egg counts from now on, either to be hatched and thus produced a second "draft army" for Fall and Winter laying, or to go into storage and be held until the season of low supply.

And Captain Farmer has now been instructed to keep everybody in camp. To prevent a serious shortage of eggs next year, the Government has issued an order prohibiting trade in live or freshly killed hens and pullets for a period of about two months. Every layer is expected to "stay on the job."

It is reported that they are going to egg the Kaiser!

## MITES AND LICE FEED ON POULTRY

Mites and lice feed on poultry. If numerous enough the birds will be kept poor and few eggs can be expected. The mites live on the roosts and in the nests. When the birds are on the roost or on the nest the mites crawl onto them and suck themselves full of blood and then crawl back on the roost or into some crack. To get rid of the mites, clean the poultry house and nest and wash the roosts and nests with a solution made up of four and one-half gallons of water, one quart of sheep or cattle dip and one quart kerosene, be sure to get it into the cracks and corners. Then put straw in the nests.

Lice live on the birds all the time, so to kill them the birds must be treated. Lard can be used. Rub it well into the skin under the vent and under the wings on grown birds and for chicks rub it onto the head and under the wings. Dusting with lice powders is also helpful and a dust box containing ashes or fine road dust is also helpful in keeping down lice. A well-cleaned and whitewashed (inside and especially roosts, nests and walls) house also helps keep down both mites and lice.

## FEED VALUE

The following analyses of poultry feeds come from reliable authority:

Corn, 10.4 protein, 70.3 carbohydrates, 5.0 fat.

Cracked corn, 8.6 protein, 73.9 carbohydrates, 3.9 fat.

Cornmeal, 9.2 protein, 68.7 carbohydrates, 3.8 fat.

Gluten meal, 29.4 protein, 52.4 carbohydrates, 6.3 fat.

Wheat, 11.9 protein, 71.9 carbohydrates, 2.1 fat.

Wheat screenings, 12.5 protein, 65.1 carbohydrates, 3.0 fat.

Wheat bran, 15.4 protein, 53.9 carbohydrates, 4.0 fat.

Wheat middlings, 15.6 protein, 60.4 carbohydrates, 4.0 fat.

Oats, 11.8 protein, 59.7 carbohydrates, 5.0 fat.

Oatmeal, 14.7 protein, 67.4 carbohydrates, 7.1 fat.

Barley, 12.4 protein, 69.8 carbohydrates, 1.8 fat.

Millions of eggs produced in this country feed no one. The natural question is, Why? And the answer is that they are carelessly handled, poorly packed in improperly constructed cases, badly stored in freight cars, or allowed to become warm on their journey from the hen's nest to the home. Prevent this enormous loss of valuable food, and loss of profits. Take every possible precaution to keep eggs fresh and wholesome, as they are when freshly laid.

## Sell in the Billion Dollar Market POULTRY Pays

the man who understands the latest methods and the practical scientific uses. You must not consider poultry a side issue,—it may be made the greatest revenue producer on the general farm. This book, acknowledged by those who know to be the best treatise for money-making results available, shows you how to make the eggs, pullets, capons, and roasters turn over bigger profits than ever before. Practical, modern, scientific,—it answers questions and gives ideas.

### PRODUCTIVE POULTRY HUSBANDRY

Second Revised Edition

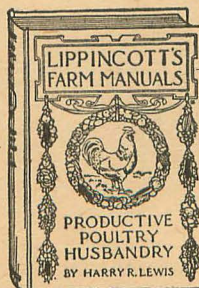
By Harry R. Lewis

Poultry Husbandry-man of the New Jersey Agricultural Experiment Station

329 illustrations.  
536 pages. Octavo  
Handsome cloth.

SECURE THIS MONEY MAKER AT ONCE  
Price, \$2.00.

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NORTH DAKOTA FARMER  
LISBON - - - N. D.



## POULTRY MAGAZINES

Send for my 1918 Catalog and save money.

W. G. Crocker - Lisbon, N. D.

## BARRED PLYMOUTH ROCK

eggs for hatching. Every bird in my yard is healthy and vigorous. They are bred for eggs and meat and nicely barred. 26 eggs \$2.50; 100 eggs \$8.00 Caponizing tools for sale.

W. W. DAVENPORT, Velva, N. D.

Rose Comb Reds and S. C. White Leghorns. Winnings and Price List, Free.

HENRY H. HIRSCHY

Lisbon, : : North Dakota

**Both** Machines \$12  
Freight Paid Only

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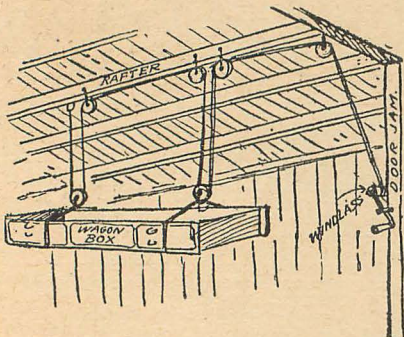
## School and Home

### ABOUT THE FARM

By Chore Boy

#### A Labor Saver

In these days of saving labor a dinner-wagon (opposite page) will be a great help if where the food and dishes have to be carried any distance. A load full of dishes or food can be handled as easily as one or two dishes at a time. It will mean fully as much to the woman in the home as a seat on the cultivator means to the man. The amount of walking done in preparing and serving meals is greater than any one suspects till it is actually figured up; and in doing this walking something is usually carried.

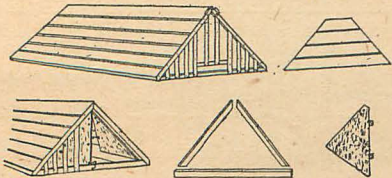


#### Up Goes the Wagon-box

The device pictured above makes easy work of lifting the wagon-box off and on. It is a pretty heavy job for one man alone without some assistance.

#### A Chicken Coop

The chicken coop illustrated below is easy to make and will accommodate a hen and her brood. It can be lightly constructed so as to be easy to move. The coop is two feet, ten inches by 3 feet, two inches, at the base. The roof is two feet high. It is made up of six-inch drop siding.



The front is made of lath placed two inches apart, which allows the chicks to pass in and out but keeps the hen in. A sliding door of lath as shown in the illustration should be provided. Close-wire netting covers the other end. A wooden cover fits over this, which can be removed in the day time.

Now is no time to raise weeds when the world is short of food. Raising crops and crops that are all crops and not part weeds will help win the war as well as pay the grower well.

#### Weeds

Weeds cause one of the big losses in farming. A weed uses plant food and soil moisture and occupies space, the

classes: Annuals, biennials and perennials. The Annuals are the most common. They include such weeds as pigeon grass, wild oats, mustard, king weed, cockle, etc. These weeds only live one season, produce seeds and die. The only way they can appear the next season is to come from seeds. If these weeds have gone to seed the problem is to keep the new plant from going to seed. One way is to let the seed grow and then kill the young weed while small. Another way is to put in a crop that is harvested before the weed is ripe, as a hay crop. A rotation of crops is the most effective way of keeping this kind of weeds in check. The growing



three things that the crops need. If the weeds take them the crop can not have them, which means that much less crop. This year the need for food stuffs is so great that no one can afford to raise weeds. Many weeds will however grow in spite of us, to some extent.

Weeds can be divided into three

of grain continuously is the best way of encouraging these weeds. The culture given the grain crops is just what the weeds need to do well and then they ripen their seed before the grain crops do, so that their seed is scattered and the ground self-seeded.

The biennials during the first season store up food in the roots and



only produce seed the second season. The burdock and bull thistle are good examples as well as the sweet clover which has graduated from a weed to a useful crop. These are the easiest weeds to handle where the land can be cultivated. They can not grow where the land is cultivated but have the best chance in pastures.

The perennial weeds come up from the roots from year to year. They are the hardest to control. Many of them spread by under-



ground stems and by seeds as quackgrass, Canada thistle and perennial saw thistle. The points to keep in mind in eradicating these is that they store up reserve food in the underground stems, that they can draw on in an emergency as in case the top is cut down before it produces seed. And this food is also used in sending up the stalks that bear seeds. To kill these weeds they must be made to use up their reserve food without being allowed to make any more. It has been found that a good way to do this is to cut the tops when in blossom then plow the land thoroly and during the rest of the season keep on plowing or discing often enough to keep the plant from sending up any new leaves as in that case it would get a new start. For a small patch of these weeds covering with tar paper is effective. Close pasturing for two or three years and especially with sheep will weaken quack grass very much so it is quite easily finished up.

Corn and potatoes should be used for cleaning crop. In order to do this the most effectively, blind cultivate as soon as planted, that is set the shovels on the 2-horse cultivator to throw in and run along the row so as to leave a ridge of soil over the row, then every time the harrow is run over the field it scrapes off a little of the ridge and also any little weeds that have come up. In this way the row can be kept quite free from weeds as the harrow can be used till the corn is 8 to 10 inches high. In fighting weeds study them to learn their weak points which will usually suggest the easiest method of eradication.

#### NURSES TRAINING CAMP AT VASSAR COLLEGE

The training camp for nurses at the college comes as a result of the call sent out by the war department for 40,000 additional nurses, and the Red Cross has accepted the Vassar Campus as a camp site. All women graduates during the years 1909 to 1918 from colleges approved by the Association of Collegiate Alumnae are eligible. The idea of the camp is to do for nurses what the officers' training camps have done for the national army. The number of those in training in the camp will be limited to 1,000. Seventy-five thousand dollars has been given by the Red Cross to finance the camp and \$50,000 has been added by the college.

For further information, address Headquarters Vassar Intensive Training Camp, 106 East 52nd St., New York City, or Miss Susan W. Norton, State Normal, Valley City, N. D.



#### PLENTY OF SUGAR FOR CANNING

Housewives of the Nation will be amply supplied with sugar for the canning season. This is assured by the United States Food Administration at Washington, D. C., and will relieve a situation about which there has been a great deal of apprehension.

E. F. Ladd, Federal Food Administrator for North Dakota is in receipt of the following information from Washington:

"All manufacturers of essential food products are advised that they will be able to obtain their full necessary requirements of sugar for manufacturing purposes during the coming season.

"This applies particularly to packers of fruit, condensed milk, and such vegetables for the preservation of which sugar may be necessary; as well as to the housewives for usage in preserving purposes.

"When the car shortage is relieved, supplies of sugar will be available for all necessary preservation purposes. Shipments from Cuba are steadily increasing."

#### PRESIDENT WILSON APPROVES SCHOOL GARDEN CAMPAIGN

President Wilson has written Secretary Lane, of the Interior, expressing the hope that "every school will have a regiment in the Volunteer War Garden Army"—the army of school chil-

dren that, it is hoped, may raise this year produce amounting to \$500,000,000.

My dear Mr. Secretary:

I sincerely hope that you may be successful thru the Bureau of Education in arousing the interest of teachers and children in the schools of the United States in the cultivation of home gardens. Every boy and girl who really sees what the home garden may mean will, I am sure, enter into the purpose with high spirits, because I am sure they would all like to feel that they are in fact fighting in France by joining the home garden army. They know that America has undertaken to send meat and flour



and wheat and other foods for the support of the soldiers who are doing the fighting, for the men and women who are making the munitions, and for the boys and girls of Western Europe, and that we must also feed ourselves while we are carrying on this war. The movement to establish gardens, therefore, and to have the children work in them is just as real and patriotic an effort as the building of ships or the firing of cannon. I hope that this spring every school will have a regiment in the Volunteer War Garden Army.

Cordially and sincerely yours,  
(Signed) Woodrow Wilson.

Hon. Franklin K. Lane,  
Secretary of the Interior.

It is Secretary Lane's idea, that is being worked out thru Commissioner Claxton of the Bureau of Education, to have five million boys and girls of the schools in every city, town and village in the country, captained by forty thousand teachers, produce as nearly as possible all of the vegetables, small fruits and eggs for their home consumption.

To the extent that each district is able to supply itself with these food products, the railways will be relieved of the burden of transporting them, and the Allies of the United States in Europe and our own soldiers on the battlefield will get that much more of the food of which they are in need.



## APRIL ADVANCES IDEAS FOR SUMMER FROCKS

### Materials of Today

New York; April 10

April's Lady has much for which to be thankful for this year. There are costumes to suit her every mood (and she has many of them!). On days when the winds remind her of March and the bitter Winter just past, she wraps herself in her voluminous cape, pulls her close-fitting little turban still closer over her sunny locks, and smiles with keen enjoyment. Then, when the sun shines brilliantly, and the soft breezes fan her cheeks, she dreams of Summer, and dons her sports suit of glowing emerald-green.

Then if she does war work, as of



**Sleeveless Overblouse and Flowered Skirt**

course she does, she wears her simple frock of serge and satin, short and narrow of skirt and straight of line.

For the evening, at her home or with her friends, she chooses, perhaps, a semi-evening dress, with elbow sleeves, and draped tunic skirt.

Her hats and gloves, her veils and scarfs, those important odds and ends, all mirror her taste; they speak volumes for the simplicity of the mode, and Fashion's tribute to Patriotism.

### Modernizing Materials

We are finding this year, in the interesting fabrics spread forth for our inspection, many an old friend with a

new name. There is that favorite of our grand-mothers, bengaline, that heavy ribbed silk, so appropriate for the dresses of today that hang in such long straight folds. There have been hints for some time of the vogue of calico for prim little frocks, becoming and—shades of our school aprons—smart! Of course, gingham is not new to us this season, but gingham silk is, and gingham tissue and gingham voile. Such a hold have these old-fashioned patterns taken on us. Organdie tempts us with new ways, cross-barred effects of the self-tone or a contrasting color; dainty plaids as well as stripes and checks vie with the one color organdies. This crisp material is absolutely bewitching for the Summer Girl. Collars and cuffs, parasols, sashes and hats are all made from this delectable goods. Bordered material holds a high place in favor this year. Embroidery flouncing makes entire costumes, or combined with batiste or organdie, the embroidery is used for the quant little sleeveless Eton coat and for the skirt, while the plain material makes the flowing sleeves and the loose waist.

### Concerning Overblouses

There is one thing absolutely essential in everyone's wardrobe this year, and that is a sleeveless overblouse. It may take the place of the gay woolen sweater or not, but it must be among those present, if one wishes to feel well dressed! Some say it is a rival of the ever-delightful middy blouse! The one illustrated here shows the big convenient pockets and loose girdle. It slips on over the head, and is worn here, with a gay flowered suspender skirt (another fashion leader) and a white blouse. The skirt is short, as all good skirts should be, and rather narrow. The wide-brimmed and rather narrow. The wide-brimmed sun-hat has applique motifs in bright colors.

### And Around Her Waist

There are any number of fascinating ways to solve the belt problem. Of course the first one that one thinks of is the wide crush ribbon, put once or twice around the waist, with a flat bow, long ends, befringed or beaded, or the perky bustle bow at the back or on the side. A girdle of this type is warranted to transform last year's dress into this year's dress, if one follows the straight rule of fashion.

Girdles of beads are very popular, especially on the dress that is long waisted. Wide yokes on the skirts seem to demand the narrow belt of ribbon or kid. Sports hats and costumes must needs be accompanied by wide leather belts with interesting buckles.

On organdie frocks and dainty

voiles, the satin belt is a favorite, sometimes contenting itself with a small rosebud or two without the traditional bow. Sometimes the sash is very, very long, reaching the hem.



© McCall

### Of Soft Bordered Material

#### Miss Simplicity

Bordered tissue was chosen for this bewitching little dress. The two flounces, the sleeves and the attractive little vest bespeak youth in every line. The collar and vest are picot-edged, giving a simple finish to their daintiness.

### PESTS

The good a hawk does by destroying mice, gophers and rabbits along with countless noxious insects many times pays for the damage he does. Only six of the seventy-three species of hawk in the United States are injurious.

Lady bugs help the farmer in his campaign against scale insects and other similar enemies of plant life.

The toad lives from ten to forty years and lays over a thousand eggs a year. It has lived for two years without food but cannot live long under water. It captures and devours wasps yellow-jackets, ants, beetles, worms, spiders, snails, bugs, grasshoppers, crickets, weevils, moths, etc. In twenty-four hours the toad consumes enough food to fill its stomach four times. A single toad will in three months devour over ten thousand insects.



## Seasonable Receipts

Mrs. Sadie Baird, Editor

### USE MORE POTATOES

#### Potato Chowder

Six potatoes, slice of salt pork, one onion, one pint milk, one tablespoon flour, one tablespoon drippings, one teaspoon chopped parsley, one teaspoon salt, one-half teaspoon pepper.

Cut potatoes into dice and pork into small pieces; fry the pork and onion in a pan until brown, put potatoes, onions and meat into a pot, add a pint of water with seasonings; simmer half an hour; make a white sauce of the milk, flour and drippings; add to the cooked potatoes. Let all boil a few minutes and serve hot.

#### Potato Pancakes

Six raw potatoes (large) grated, one and one-half teaspoon salt, one tablespoon milk, one egg beaten, three tablespoons flour.

Mix the above ingredients, beat thoroly and cook on hot greased gridle.

#### Potato Muffins

Four tablespoons fat, two tablespoons sugar, one egg, one cup mashed potato, two cups flour, three teaspoons baking powder, one-half teaspoon salt, one cup milk.

Cream the fat and sugar; add the egg well beaten, then the potato and mix thoroly; sift flour, baking powder, and salt; add milk and flour alternately; bake in greased muffin tins 25 to 30 minutes.

#### Potato Biscuit

One cup mashed potato, one cup flour, four teaspoons baking powder, one teaspoon salt, two tablespoons fat, one-half cup water or milk (about).

Sift together flour, baking powder and salt; work in the fat with fork or knife; add potato and mix thoroly; then add enough liquid to make a soft dough; roll the dough lightly to about one-half inch in thickness; cut in biscuits and bake 12 to 15 minutes in hot oven.

#### Potato Souffle

Four cups hot mashed potato, one tablespoon melted fat, two tablespoons milk, one teaspoon salt, one-half teaspoon pepper, yolks of two eggs, whites of two eggs beaten stiff.

Mix all but the whites of the eggs in the order given; beat thoroly, fold in the stiffly beaten whites; pile in a baking dish and cook until the mixture puffs and is brown on the top.

#### Surprise Balls

Form mashed potatoes into balls and with a teaspoon make a depres-

sion in the top of each; mix one cup of grated cheese with salt, celery salt, and butter substitute, and put one teaspoon in the hollow of each potato ball; mold the ball so the stuffing is concealed and brown in the oven or frying pan.

#### Potato in Cake

In the usual cake recipe, substitute one cup of mashed potatoes for one-half cup of milk and one-half cup of flour; mash the potatoes and beat up with milk until very light. Potato cake does not dry out so quickly as all-flour cake.

#### Oatmeal Muffins

One cup milk, one tablespoon fat, two tablespoons syrup, one egg, one teaspoon salt, four teaspoons baking powder, one-half cup wheat flour, one and one-fourth cup oatmeal.

Sift the salt, baking powder and the flour together, mix in the oatmeal. Add to the cup of milk, the melted fat, syrup and beaten egg. Combine these two mixtures stirring lightly without beating. Bake about 30 minutes in a moderately hot oven. Use granulated oatmeal or put rolled oats thru food chopper.

#### Corn-rice Muffins

One cup cornmeal, one cup boiled rice, one cup milk, one tablespoon fat, one teaspoon salt, two teaspoons baking powder, two eggs.

Mix cornmeal, rice, milk and shortening together; beat five minutes; then add well-beaten eggs, beat two minutes, then add the baking powder. Bake in hot greased muffin tins or in shallow pan. Boiled hominy may be used in the above recipe instead of rice.

#### Barley Muffins

One cup milk, one tablespoon fat, one tablespoon syrup, one egg, one teaspoon salt, four teaspoons baking powder, one cup wheat flour, one and one-half cup barley flour.

#### Barley Sponge Cake

Barley flour, one and one-third cups; sugar, one cup; eggs, 4; lemon juice, one tablespoon; salt, one-eighth teaspoon.

Substitute one cup of corn flower for the barley flour or three-fourths cup rice flour. When using corn or rice flour use two tablespoons lemon juice.

Separate the yolks and whites of the eggs. Beat the yolks until light, add the sugar, the salt and the lemon juice. Fold in alternately the flour and the stiffly beaten whites.

These cakes are all very nice and light, texture and color good. Barley has characteristic flavor. The corn flour cake is especially tender and all are of good texture. The extra lemon juice is used with rice and corn because these flours have a slightly starchy taste.

#### Egg Broth

This hot drink is a meal in itself. It is especially useful in the diet of babies over a year old and for invalids:

One egg, one-half teaspoon sugar, one teaspoon butter, one pint hot milk, one-half teaspoon salt.

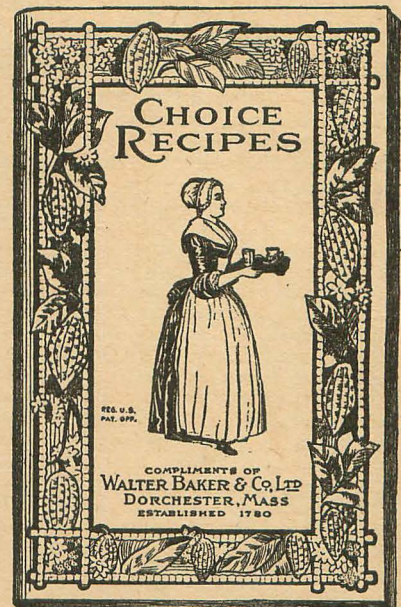
Beat egg and sugar together; add hot milk and butter and beat thoroly. Add salt and serve at once.

## H O N E Y

Is very scarce and high at present but we have secured a very fine lot of extracted honey which we sell in 30-lb. cans at \$6.30 per can or \$6.00 per can in lots of two or more cans. Chunk comb honey in 10-lb. cans 22 cents per lb. or 21 cents per lb. in lots of three or more cans. Comb honey, fancy, \$5.25 per case of 24 sections. Sample 10 cents. Price list free.

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## MILK IS IN SEASON

The first law of conservation is—Use Home Supplies in Season. Milk is in season, milk is both meat and drink, milk furnishes easy energy to the system, milk has a hundred uses—it may be served as a beverage, a soup, the foundation of the main dish, or turned into a salad in the form of cream cheese, or converted into a dessert. The housekeeper who has an abundance of milk and eggs is rich in resources.

Where skim milk is plentiful use it in making graham or bran breads, it

gives a soft texture to any bread that contains branny material.

Cooking rice, mush or oatmeal with milk not only adds to the food value but improves the dish.

This is the season for cream soups—cream of onion, potato, bean, oyster plant, pea, celery, tomato, corn, spinach, asparagus and a dozen more. In these soups you can use canned vegetables and vegetables not so good for use in other ways, such as coarse celery or potatoes not good enough for baking. Serve these nourishing soups with a light meal.

Make the best use now of dishes made with white sauce. This is the

basis of milk-gravies, cream soups, croquettes, souffles, scalloped dishes and certain desserts such as cornstarch or tapioca pudding. Substitute cornstarch, rice or corn flour for wheat flour in making cream sauce. Cook fat and cornstarch thoroly before adding the milk. A brown sauce may be made by browning the fat and the cornstarch before adding the liquid.

## SUBSTITUTE BRAINS

Do you remember the day you picked up the coffee pot and off fell the top? The rod had slipped out of the hinge. Without a moment's hesitation you slipped in a bit of wire, bent it in position and secured the top—the rod was gone but you substituted brains.

That is just what you are called on to do in bread-making—substitute brains.

The object of the wheat campaign is to cut consumption one-half. Keep your eye on that goal; let nothing turn you aside. We are in a race with Germany. "Food Will Win the War"—but whose food?

The American people have been asked to save 100,000,000 bushels of wheat by July as a military necessity. You are a military unit in the campaign and three times a day you are called on to do your share. If you fail you imperil the safety of the army on the other side. No reason, no excuse matters; the only thing that counts is saving the wheat—the cut must be made.

"But biscuit are the quickest to make," objects one woman.

That's an excuse not a reason—if you must have biscuit why not barley biscuit, rice biscuit or corn flour biscuit?

"But," and this is heard from many women, "my grocer has no substitute flour.

Well, why not potatoes? Potato bread is excellent and potato biscuit a treat. There are always potatoes too small to bake that can be turned into bread. Small potatoes make large loaves. Substitute brains and the will to conquer for excuses, and the wheat will be saved.

One woman who could buy no substitutes cereals at her store and had no money to order elsewhere made two weeks' supply of flour do for three. She did the job; she cut flour consumption one-third, and that's the point.

How to save your share of that 100,000,000 bushels of wheat is mostly a matter of ingenuity. When you get in a tight place use your head—substitute brains—but above all do the job.

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88 Draw. Pa. white 1/2 rm. 9x12. .65	5g Seals, Patriotic Shields, box. .12
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64 Flag, Sewed " Bunting (7x14) 23.25	67 Stars, Silver, box..... .10
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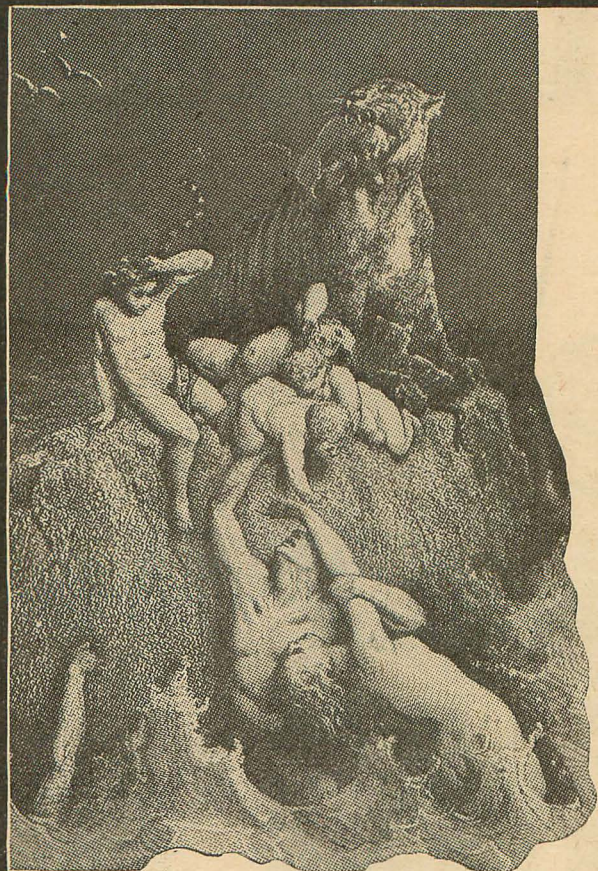
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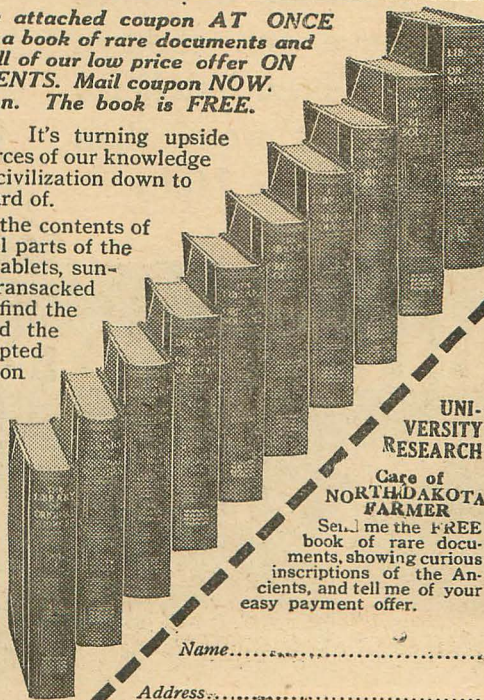
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